

Tuesday, 2004Jul12
MSC Minutes
Corrections to: dvj@alum.mit.edu

Bob Davis
Bob Ferguson
David Gustavson
David James
Dick Karpinski
Mike Smolin
Leonard Tsai
Dan Zuras

VII.1 Officers reports

Chair's report:
Three PARs approved:
1620, 1796, 1896

Treasury report, positive with:
\$6057.40

Secretary (DVJ):
Web site with project status has been updated
Action item:
check to verify that subprojects are web listed

IX Liason reports
IX.1 Standards board (by Bob Davis)

- Bob noted that our PARs were approved.
- Discussion on possibly eliminating the need to read the patent policy at all meetings, some say that is implied by the agreements of WG participants. Results are pending...

IX.2 IEEE-RAC (David James)

DVJ noted that past IEEE/RAC meeting provided him with an action item to work on OUI-based number assignment policies, in conjunction with Geoff Thompson.

Geoff cancelled the first meeting time, provided no input on distributed email, and a second meeting time could not be arranged.

Bob Davis noted that his lunchtime meeting with Geoff wasn't very productive, so more work probably remains before convergence will be possible.

DVJ noted the basic problem:
1) IEEE/RAC has tutorials for EUI-48 and EUI-64 on file.
2) IEEE/RAC has no tutorials for context-dependent IDs on file.
3) 802.3 likes to use (but not document) context-dependent IDs.

In the absence of Geoff's inputs, the adhoc group of Bob Davis, DVJ, and DBG met and created a email. This has since been refined into an HTML web page, proposed to be a revised IEEE/RAC update. This will be discussed at the next meeting.

Bob Davis raised the topic of the MSC sponsored EUI subassignment group. Peter Johansson was to organize a group to propose policies. To ensure progress, in the apparent lack of recent progress, Bob Davis reassigned this task to Leonard Tsai.

Bob noted our initial starting point on this task, with values assumed:
00 - don't use
01 - across all usage
02 - 1394 usage assigned

IX.3 Microprocessor TAG report

Peter Johansson to provide information on the TAG,
including minutes of the last meeting in Los Gatos.

X.2 Expiring PARs

- P1355 Bob Davis to contact Colin Whitby Strevent
- P1355.2 to determine status and possible need for extension.
- P1363.1 Extension requested by William White, 2 year extension given
- P1363.2 "
- P1575 Chair need to be found
- P1579 LiteLink -- done in JEDEC, so can be let to expire

XI.1 New business, Mike Smolin

Mike Smolin -
CSP representative, provided a summary
If you have any ideas, send the ideas to Mike

XII Working group reports

- P1620.1 - Followon for organic semiconductors, ring oscillators
- P1796 - Teleconference meeting in about 1 week,
Face to face meeting planned for about 4+ weeks
- P1896 - Bob Davis plans to do most via teleconference

- P754 - 6 weeks of intense meetings to start
Had discussion with Noelle and Andy
General discussion followed
May publish on the Web, allow to be IEEE CDs also

XIII Study group reports

Study groups have terminated, by advancing to project status.

XV Next meetings

- Next meetings:
- 2004Oct11
 - 2005Jan10
 - 2005Apr11
 - 2005Jul11
 - 2005Oct10 (election of officers)

Casual wrapup discussion:

We noted the lack of success using the cell phone to teleconference.

As a result, plans include:

- 1) Buy a high quality conference-room speaker phone
- 2) Try a quiet corporate or residential meeting place
(to avoid restaurant noise).

Offers for the next meeting include:

- Leonard Tsai -- can host at his company (but too far North?)
 - David James -- can host at his home
- Bob Davis to conclude the location month before the next meeting

As observed&written by your secretary,
David V James

Geoff,

At the last IEEE/RAC meeting, I believe you agreed to work offline on strategies for the use of OUIs formats, including context sensitive OUIs.

The planned week for discussions did not work with your schedule, so the rest of the MSC representation started without your presence, with the plan of a rendezvous after we had produced the first pass draft.

The first pass draft has been completed and is appended. Please review and provide suggestions for refinements.

Minor comments can probably be resolved through email; major comments may require a teleconference. If a teleconference seems appropriate, please provide suggested dates and times, so that we can accomodate your schedule.

Respectfully,
DVJ

Adhoc IEEE/RAC/MSC strategy meeting
OUI usage policy statement

Action plan:

Generated by:

David Gustavson
David James
Bob Davis

Prereview planned with:

Geoff Thompson

Review and signoff planned for:

IEEE/RAC

Problem:

a) OUIs are used in a wide range of orderings and length, most of which are poorly and/or inconsistently documented.

b) The use of context-dependent OUI-based identifiers could generate problems, since administration authorities often lack the knowledge or talent to administer distinct application dependent unique-number assignment lists.

Solution:

1) All new applications of the OUI within IEEE standards shall use the EUI-48 or EUI-64; use of other OUI-based unique identifier lengths is explicitly disallowed.

2) Within new applications, only low volume applications (such as software interface IDs) may use the EUI-48. However, even in such applications, the use of EUI-64 based identifiers is preferred.

3) The owner of Organizationally Unique Identifiers must assure the global uniqueness of EUI-48/EUI-64 numbers derived from their OUI. Such identifiers may be used for multiple purposes, some of which are listed below:

- a) Software identifiers. The identifier uniquely identifies the software instance associated with a hardware device.
- b) Format identifiers. The identifier uniquely identifies the format and/or function of network frames.
- c) Entity identifiers that are required to transparently bridge to existing 48-bit MAC address based networks. This identifier uniquely identifies a hardware interface, such as a network interface card.
- d) Entity identifiers (not required to transparently bridge to existing 48-bit MAC address based networks). This identifier uniquely identifies a device, such as a current IEEE 1394 node or a future memory, refrigerator, video controller, power supply, etc.

Note that the same identifier must not be used for more than one purpose. As examples, the same identifier must not be used for (a) and (b), or for (b) and (c). The intent of this restriction is to reduce possible errors introduced by the complexities of managing multiple context-dependent address spaces within each organization.

The EUI-64 identifier format must be used for (e); the EUI-48 identifier is required for (c), due to legacy compatibility constraints. Either the EUI-48 or EUI-64 may be used for (a)-to-(b), although the use of the EUI-64 is preferred.

4) The majority of the EUI values within an assigned OUI must be utilized before another OUI identifier will be assigned to the same organization.

5) All existing applications shall clearly specify a mapping of the OUI value (expressed as hexadecimal digits) to the applicable register or bit-string value.

a) If another portion of the document is cross-referenced, to define this mapping, a specific document and page number shall be cross referenced. Generic cross-references (Clause 12.3, when the collection of amendments is integrated together) are specifically disallowed.

b) To avoid changes in existing standards, the working group has the option of providing tutorials, which are posted on the IEEE/RAC web site.

c) If a standard, including related original portions of an amended standard does not conform with documentation policies of (a) or (b), the IEEE/RAC will recommend the standard not be approved.

6) What about the common use of compact unique EUI-32 values, or EUI-like values that specify partitioning of the extended identifier bits? Two options are possible:

a) Deprecated. This was done in the past, but will not be done in the future.

b) EUI-32 numbers are defined to be unique within each sponsor. The Sponsor's must conserve number assignments so that they are consumed in preponderance before another OUI is assigned.

The MSC representation recommends option (a) the above:

7) A modification of the EUI schema exists as the WWN (World Wide Name) identifier, used in INCITS protocols for SCSI, iSCSI, SATA, ADAPTI, Fibre Channel, SAS, etc. The WWN uses a 4-bit NAA (name administration authority) field and a 60-bit OUI based identifier.

To avoid confusion between EUI-64 and WWN values, OUI values of the form 5X-XX-XX will not be assigned by the IEEE/RAC.

8) The assignment of OUI-based identifiers is designed to allow extended EUI-32 and EUI-48 identifiers to be encoded as unique 48-bit values. Thus:

if the EUI-32 of AB-CD-EF-12 is assigned by the Sponsor,
then the EUI-48 of AB-CD-EF-12-FF-FF must not be assigned.

9) The assignment of OUI-based identifiers is designed to allow EUI-48 and EUI-64 identifiers to be encoded as unique 64-bit values. As per the existing tutorial:

if the EUI-48 of AB-CD-EF-12-34-56 is assigned,
then the EUI-64 of AB-CD-EF-FF-FE-12-34-56 must not be assigned.

10) The rules of (7), (8) and (9) allows any combinations of EUI-32, EUI-48, EUI-64, and WWN identifiers to be encoded and transported as unique 64-bit numbers.

David Gustavson
David James
Bob Davis

David V. James
3180 South Ct
Palo Alto, CA 94306
Home: +1.650.494.0926
+1.650.856.9801
Cell: +1.650.954.6906
Fax: +1.360.242.5508
Base: dvj@alum.mit.edu